

## Taxonomy and Distribution of *Calamagrostis brachytricha* var. *ciliata* (Gramineae)

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A new combination, *Calamagrostis brachytricha* Steud. var. *ciliata* (Honda) Ibaragi & H.Ohashi is proposed. This variety has been known from China and Taiwan, but is newly found in Korea and Japan.

**Key words:** *Calamagrostis*, new combination, new distribution, taxonomy, variety

During our botanical collection in Korea in September 1996, we noted a plant of *Calamagrostis* which has characteristic long hairs on the margin of glume (Fig. 1). The plant was found on banks in the valley in Sorak National Park in northeastern South Korea. Such plants have not been recorded in Korea (Y.N. Lee 1964, 1996, Chung 1965, W.T. Lee 1996), but we identified them *Calamagrostis arundinacea* (L.) Roth var. *ciliata* Honda (Fig. 2). This variety was described from Taiwan (Honda 1926) and was found also in China (Keng 1957, Kuo and Lu 1987), but have not been recorded from Japan (Honda 1930, Ohwi 1936, 1965a, 1965b, Osada 1989) or former USSR (Tsvelev 1976). However, we found that this variety is common in Japan.

*Calamagrostis arundinacea* has a wide range of distribution in Eurasia. A form of the species found in Asia including Japan, Taiwan, China, and Korea has rather long callus hairs and has sometimes been treated as the variety of the species, i.e., var. *brachytricha* (Steud.) Hack. (Ohwi 1953, 1965a, 1965b, 1982, Tsvelev 1976, Ohwi and Kitagawa 1992). Tateoka (1969) clari-

fied distinctness of this variety from *C. arundinacea* in morphology, distribution, chromosome numbers and modes of reproduction. He treated *C. arundinacea* var. *brachytricha* as a distinct species, *C. brachytricha* Steud. We agree with his treatment of this species. However, Tateoka (1969) did not treat *C. arundinacea* var. *ciliata* Honda. This variety can be clearly distinguished and we think *C. arundinacea* var. *ciliata* is a distinct and well distinguished variety from var. *arundinacea*.

To summarized, the taxa mentioned above are distinguished as in the following key:

- A. Callus hairs about 1/5–1/4 the length of lemma ..... *C. arundinacea*
- A. Callus hairs about 1/3–1/2 the length of lemma ..... *C. brachytricha*
- B. Margin of lower glume glabrous .....  
..... var. *brachytricha*
- B. Margin of lower glume with long hairs .....  
..... var. *ciliata*

Following treatment is, therefore, proposed herewith.

***Calamagrostis brachytricha* Steud.  
var. *ciliata* (Honda) Ibaragi & H.Ohashi,**

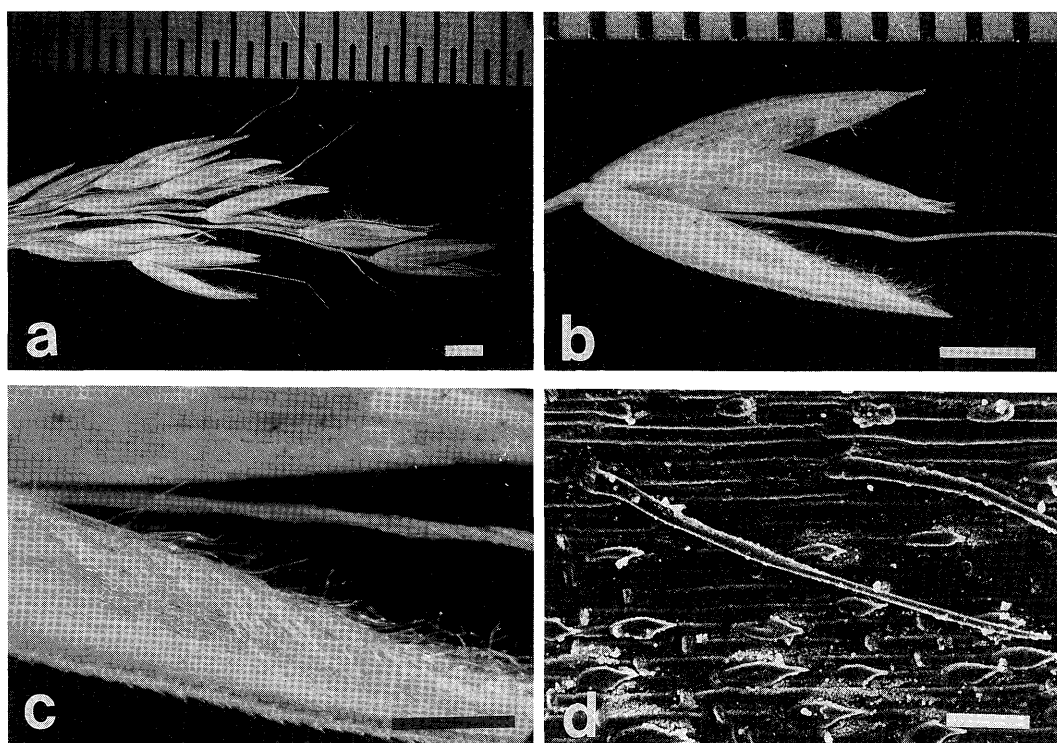


Fig. 1. Inflorescences and spikelet of a *Calamagrostis* specimen in Korea. a. Inflorescences, b–c. Spikelet showing hair on the lower glume, d. Hairs on the lower glume. Voucher specimen: H. Ohashi et al. K1271 (TUS). bar = 1 mm.

comb. nov.

*Calamagrostis arundinacea* (L.) Roth var. *ciliata* Honda in Bot. Mag. Tokyo **40**: 441 (1926) [Type: Taiwan. Miaoli: Luchang-tashan. (T. Kawakami and U. Mori s.n., 8 Oct. 1908), TI]; in J. Fac. Sci. Univ. Tokyo Bot. **3**(1): 178 (1930).

*Deyeuxia sylvatica* (Schrad.) Kunth var. *ciliata* (Honda) Keng, [Clav. Gen. Sp. Gramin. Prim. Sin.: 202 (1957), comb. illeg.; Keng, Flora Illust. Pl. Primarum Sin. Gramineae: 514 (1959)], Fl. Tsinling. **1**(1): 139 (1976).

*Deyeuxia arundinacea* (L.) Beauv. var. *ciliata* (Honda) P.C. Kuo & S.L. Lu in Fl. Reipubl. Popularis Sin. **9**(3): 208 (1987).

Japanese name: Taiwan-saitougaya.

Distribution: China, Taiwan, Korea and

Japan (Fig. 3).

Specimens examined of *Calamagrostis brachytricha* Steud. var. *ciliata* (Honda) Ibaragi & H. Ohashi:

**CHINA.** Shahekou (M. Kitagawa, Sep. 1931, TI). **Shandong.** Tsinan (C.Y. Chiao 3093, PE). **Guizhou.** Zunyi, Jindingshan alt. 1250–1350 m (Chuan qian dui 1214, PE); Zunyi, Jindingshan alt. 1400 m (Chuan qian dui 1269, PE); Zunyi, Xinzhou alt. 590 m (Chuan qian dui 1587, PE); Zunyi, Liyi alt. 950 m (Chuan qian dui 1591, PE); Anshun city (Anshun dui 1981, PE). **Nei Mongol.** Wengniuteqi (Wang 3496, PE). **Henan.** Song xian, Longchi (Henan dui 1153, PE); Song xian, huangtuling alt. 230 m (Henan Exped. 1288, PE). **Shanxi.** Hanzhong alt. 1300 m (D. W. Wang 328, PE); Ningshanqiao (B. Z. Guo 1092, PE). **Gansu.** Yuzhong (Huanghe dui 1680, PE). **Jiangsu.** Nanjing zhongshangmenwai alt. 75 m (G. S. Zhou 80282, PE); Nanking (K. S. Chow 80282, KYO); Liyang, Shenxian (F. Liou et al. 2796, PE). **Jiangxi.** Lushan (Y. G. Xiong 10026, PE); Tong gu, Caozuli alt. 960 m (S. Lai 03686, PE). **Hunan.** Nanyue (no. 95, PE).

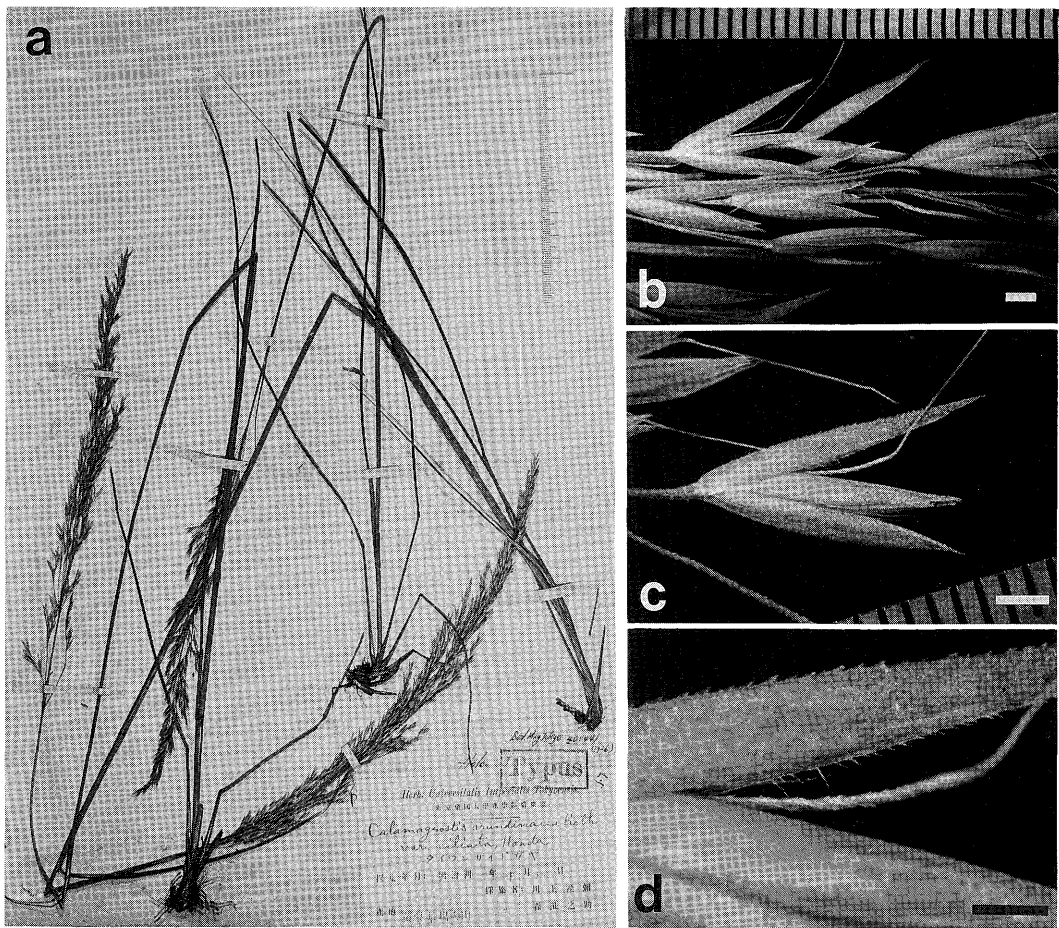


Fig. 2. *Calamagrostis arundinacea* (L.) Roth var. *ciliata* Honda. a. Holotype, b. Inflorescences, c. Spikelet, d. Hairs on the lower glume. Voucher specimen: Kawakami and Mori s. n., 8 Oct. 1908 (TI). bar = 1 mm.

**KOREA;** Namsandong (T.Uchiyama 10 Oct. 1900, TI); Engi (R. K. Smith 20 Sep. 1933, TI); Chonnam (H. D. Chang 314, TNS). **Kangwon.** Sokcho city Sorak National Park Oesorak Sorakdong–Biseondae–Yangpok alt. 250–750 m (H. Ohashi et al. k1245, k1249, k1250, k1257, k1263, k1265, k1268, k1271, k1278, k1280, k1288, TUS).

**TAIWAN;** Nan-tou. Mt.Neng-kao between Yun-hai (Onoe) and Tien-chih (Noko) alt. 1500 m (M. Tamura & H. Koyama 23209, KYO). Miaoli. Lu chuangta shan (T. Kawakami & U. Mori 08 Oct. 1908, **TI–Holotype of *C. arundinacea* (L.) Roth var. *ciliata* Honda.**

**JAPAN. Honshu. Miyagi.** Sendai-shi, Dainenji-yama (Yoshimi Abe 03 Oct. 1952, TUS); Shiroishi-shi, Fukuoka, Nagafukuro, Mt. Nanbu. Alt. ca. 250 m (T.

Houya 15 Sep. 1982, TUS). **Gunma.** Mt. Haruna (A. Kitazawa 29 Jul.–4 Aug. 1955, TI). **Tokyo.** Hachioji-shi (formerly Nishitama-gun, Kasumi-mura) (T. Sato 7457, TUS ); Hannou (A. Kimura 27 Sep. 1925, TUS); Kamikitazawa (M. Honda 19 May, TI); Kariyoseyama (K. Izawa 01 Oct. 1933, TI). **Niigata.** Kariwa-gun, Uchigou-mura, Betsuyama (Y. Ikegami 07 Oct. 1933, TNS). **Fukui.** Obara toge (Y. Hori 10 Aug. 1935, TNS). **Yamanashi.** Kofu-shi (H. Koidzumi 56, TNS); Kofu-shi (Yajima 86228, TNS). **Nagano.** Ohshima-mura, Ikenotaira (M. Matsumura 1349, TNS) Higashichikuma-gun, Honjoh-mura (H. Koidzumi 18695, TNS); Higashichikuma-gun, Ono-mura (H. Koidzumi 26504, TNS); Kamiina-gun, Ina-machi (H. Koidzumi 10540, 52343, TNS); Saku-gun, Nakagome-

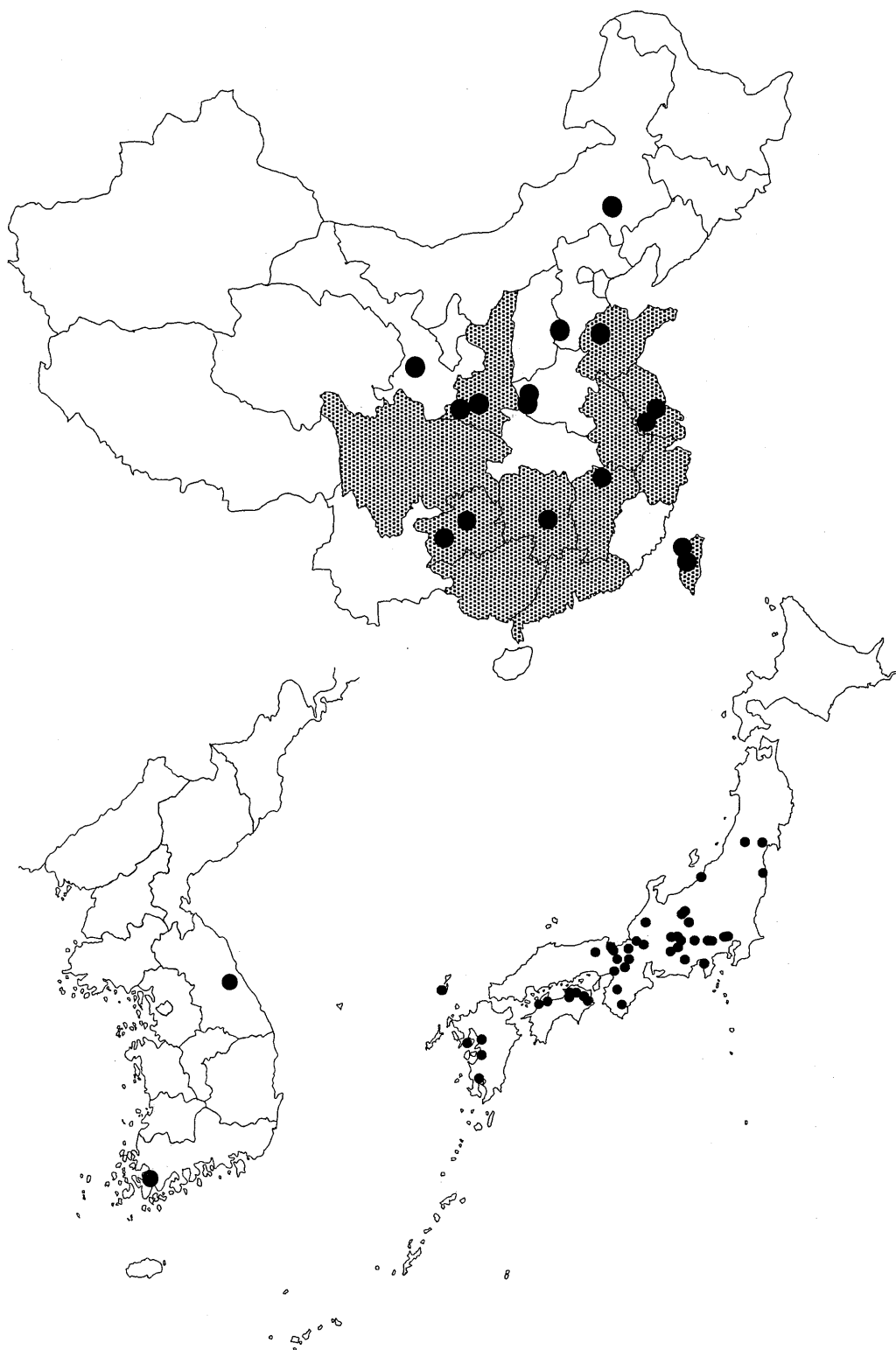


Fig. 3. Distribution of *Calamagrostis brachytricha* Steud. var. *ciliata* (Honda) Ibaragi & H.Ohashi. Shadow areas from literature and dots (●) based on herbarium specimens.

cho, Uchiyama, Shouanji (K. Sato 20 Sep. 1958, TI); Akahomura (H. Suzuki 19 Sep. 1927, KYO); Shimoina-gun, Ohshika-mura, Ohguri (G. Furuse 557, KYO); Shimoina-gun, Ohshika-mura, Ohguri (M. Furuse 23 Sep. 1931, TNS); Shimoina-gun, Haba (M. Furuse 18 Jul. 1989, TNS); Shimoina, Neba-mura (M. Muramatsu 398, TNS). **Shizuoka**. Izu, Mt. Daruma (T. Tateoka 1955, TNS); Ogasara-gun, Do (G. Hashimoto 20 Sep. 1930, TNS). **Mie**. Komono (T. Hattori 22 Sep. 1925, KYO). **Shiga**. Ohtsu, Ozeki (I. Sono Sep. 1906, TNS); Ika-gun, Yogo-cho near Horikawa (H. Funakoshi 1026, TI); Mt. Ibuki (K. Inagaki 13 Oct. 1928, TI); Ogasayama (D. Shimizu 13 Oct. 1929, TI). **Kyoto**. Ayabe-shioyogi-cho, Mt. Misen-zan (S. Tsugaru & M. Sawada 19319, TUS); Funai-gun, Hiyoshi-cho, Goma, alt. 220 m (G. Murata & T. Takahashi 70308, TUS); Mt. Daimonjiyama (M. Tagawa 474, TNS); Fukuchiyama-shi, Houyou, Mt. Eboshidake (S. Mimoro & S. Tsugaru 805, TNS). **Osaka**. Osaka-shi, near Sotooka-cho (N. Ui 01 Oct. 1928, TI). **Wakayama**. Mt. Koyasan (Y. Satake & S. Okuyama 8388, TNS); Nishimuro-gun, Inanari-mura (Nakajima Oct. 1925, TI). **Yamaguchi**. Abu-gun, Shikasegasaka (D. Nikai 16 Oct. 1910, TNS).

**Shikoku**. **Kagawa**. Kotonami-cho, Mt. Ryuohsan (R. Takahashi 03 Oct., TUS), **Tokushima**. Katuura-gun, kamikatu-cho, Tonogouchi (C. Abe 50535, TKPM); Mima-gun, Mima-cho, Mt. Ryuohsan (C. Abe 19542, TKPM); Mima-gun, Waki-machi, Soetani (C. Abe 19543, TKPM); Miyoshi-gun, Ikawa-cho, Kurokawa (C. Abe 5810, TKPM); Mt. Ryuohsan (C. Abe 62, TKPM); Miyoshi-gun, Ikeda-cho, Shimonorouchi (C. Abe 42389, TKPM). **Ehime**. Onsen-gun, Kutani-mura, near Misakatoge. alt. ca. 700 m (J. Murata 10124, TI); Onsen-gun, Kutani-mura, near Misakatoge. alt. ca. 700 m (J. Murata 10124, TUS); Shuusu-gun, Tano-mura (I. Yogo 25 Oct. 1936, TI).

**Kyushu**. **Nagasaki**. Tsushima, near the summit of Mt. Shirodake (M. Furuse 05 Oct. 1967, TNS). **Kumamoto**. Itsuki (K. Mayebara 22 Aug. 1931, TI); Shakaindake (Z. Tashiro 14 Aug. 1924, KYO); Kumamoto, Mt. Ohagi-yama, west of Kumamoto city (M. Kozuma 21684, TNS); Kumamoto, Kamatogizaka (M. Kozuma 21682, TNS); Ashikita-gun, Yunoura (K. Maebara 24 Oct. 1926, TNS). **Kagoshima**. Kago-shima-gun, Yoshinokouchi (Z. Tashiro 08 Oct. 1916, TNS).

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茨木 靖<sup>a</sup>・大橋広好<sup>b</sup>：イネ科タイワンサイトウガヤの分類と分布

1996年に韓国で植物調査を行った際に、下位包穎のふちに長い毛を有するノガリヤス属植物の一種を見つけた。韓国から未記録のものであった。同定の結果、この植物は Honda (1926) によって台湾から記載された *Calamagrostis arundinacea* (L.) Roth var. *ciliata* Honda であるとの結論を得た。調べてみると日本にも生育することが分かった。すなわち、本変種は台湾、中国、日本、韓国に分布していることが明らかとなった。種の扱いは Tateoka (1969) に従い、*C. brachytricha* Steud. を採用したい。したがって、本変種の学名は *C. brachytricha* var. *ciliata* (Honda) Ibaragi & H. Ohashi となる。

次に、*Calamagrostis brachytricha* var. *ciliata* の和名についてふれておきたい。この植物は Honda (1926) によってタイワンサイドガヤと名付けられた。しかし、本田以外にこの和名は使った研究者はおらず、タイワンサイトウガヤ (牧野・根本 (1931)：訂正増補日本植物総覧，正宗 (1954)：台湾植物目録，楊 再義 (1982)：台湾植物名彙) と呼ばれている。このような混乱は母種の和名がサイトウガヤかサイドガヤであるかに起因している。松村任三 (1884)：植物名彙後編，Nakai (1911)：Flora Koreana II などではサイトウガヤが使われていたが、本田は1930年のモノグラフの中で、“Saido-gaya (Ono)” を第一に挙げ、“Saito-gaya” をその同名とした。この記載の形式から見て、Saido-gaya は Ono による和名で、サイトウガヤよりも古いものとして本田が採用したのではないかと想像できる。しかし、サイドガヤを生かした理由は説明されておらず、Ono についての文献

引用もない。われわれの調べた限りでは、Ono の出典は不明であった (小野蘭山：本草綱目啓蒙と小野蘭山・島田充房：花彙にはない。小野職愨かも知れない)。一方、サイトウガヤについても分らない。牧野 (1940)：増補版牧野日本植物図鑑ではサイトウガヤを採り、西塔茅の意味で比叡山西塔の辺で採られたためとしている。この根拠も出典も明らかではない。これまでの用例を調べてみると、サイドガヤを使っているのは、Honda (1930)，本田 (1939)：日本植物名彙，Ohwi (1936)，植物分類，地理 5: 225-242) があり、また、サイドウガヤという名 (たぶん誤名) も大井 (1965)：日本植物誌と大井・北川 (1983)：新日本植物誌にある。しかし、サイトウガヤが最もよく使われている (本田 (1957, 1963)：改訂日本植物名彙；北村・村田・小山 (1964)：原色日本植物図鑑 III；奥山 (1974)：日本植物ハンドブック；大井 (1982)：日本の野生植物；長田 (1989)：日本イネ科植物図譜)。以上のように、現時点では、この植物の和名についてはわれわれには分からない点が多い。当初は原著を尊重し、タイワンサイドガヤを採用すべきと考えていたが、和名の変遷を見ると本田自身が後になって何らかの理由でサイドガヤの使用をやめたこと、また、すでにタイワンサイトウガヤの名前も発表されていることから、タイワンサイトウガヤを用いるのが適当なのではないかと考える。

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